

IN THE CLAIMS

1. (currently amended) For an intervertebral disc replacement device having a flange and at least one bone screw hole for receipt therethrough of at least one bone screw and at least one mounting hole, a retaining device for said at least one bone screw, comprising:

a threaded attachment member for threaded engagement with said at least one mounting hole in said flange of said intervertebral disc replacement device; and

a head flange defined by an outer perimeter, said head flange extending from said threaded attachment member, wherein said head flange is in part abuttingly received against a side of said flange of said intervertebral disc replacement device and said outer perimeter is partially received over a portion of said at least one bone screw to prevent said at least one bone screw from backing out of said at least one bone screw hole when said retaining device is fully engaged with said intervertebral disc replacement device,

wherein said head flange includes a solid portion and at least one stress relief area wholly contained within the confines of and not extending through said outer perimeter so that the at least one stress relief area is bounded on all lateral sides~~completely surrounded~~ by the solid portion, the at least one stress relief located on said head flange at a point other than a central point of said head flange and providing for said head flange to be at least somewhat flexible in a substantially axial direction of said threaded attachment member.

Claim 2 (canceled)

3. (original) A retaining device as recited in claim 1, wherein said head flange is of a convex construction from an orientation taken in relation to said threaded attachment member.

Claim 4 (canceled)

5. (previously presented) A retaining device as recited in claim 3, said head flange flexing in such a manner so as to cause said convex construction thereof to become flatter when said retaining device is fully engaged with said intervertebral disc replacement device, wherein said flatter condition of said head flange causes said threaded attachment member to exert pressure along its said threaded engagement with said at least one mounting hole so as to prevent said threaded attachment member from backing out of said at least one mounting hole.

6. (original) A retaining device as recited in claim 5, said at least one bone screw hole comprising first and second bone screw holes and said at least one bone screw comprising first and second bone screws.

7. (previously presented) A retaining device as recited in claim 6, wherein said outer perimeter is partially received over portions of said first and second bone screws to prevent said first and second bone screws from backing out of said first and second bone screw holes, respectively, when said retaining device is fully engaged with said intervertebral disc replacement device.

8. (currently amended) A method of preventing a bone screw from backing out of a bone screw hole in an intervertebral disc replacement device, comprising the steps of:

inserting a retaining device into a mounting hole in said intervertebral disc replacement device, said retaining device including a threaded attachment member for threaded engagement with said at least one mounting hole and a head flange having an outer perimeter, said head flange extending from said threaded attachment member capable of at least partially covering said bone screw to prevent said bone screw from backing out of said bone screw hole when said retaining device is fully engaged with said intervertebral disc replacement device, wherein said head

flange includes a solid portion and at least one stress relief area wholly contained within the confines and not extending through said outer perimeter so that the at least one stress relief area is bounded on all lateral sides~~completely surrounded~~ by the solid portion, the at least one stress relief located on said head flange at a point other than a central point of said head flange and providing for said head flange to be at least somewhat flexible in a substantially axial direction of said threaded attachment member; and

tightening said retaining device in said mounting hole such that a portion of a head flange of said retaining device becomes flatter against a portion of said intervertebral disc replacement device and another portion of said head flange of said retaining device abuts against a portion of said bone screw.

9. (previously presented) A retaining device as recited in claim 1, wherein the at least one stress relief area is circular.

10. (previously presented) A retaining device as recited in claim 1, wherein said head flange includes two stress relief areas.

11. (previously presented) A retaining device as recited in claim 1, wherein said head flange includes three stress relief areas.

12. (previously presented) A retaining device as recited in claim 1, wherein said head flange includes four stress relief areas.

13. (previously presented) A retaining device as recited in claim 12, wherein the stress relief areas are circular.

14. (previously presented) The method as recited in claim 8, wherein the at least one stress relief area is circular.

15. (previously presented) The method as recited in claim 8, wherein said head flange includes two stress relief areas.

16. (previously presented) The method as recited in claim 8, wherein said head flange includes three stress relief areas.

17. (previously presented) The method as recited in claim 8, wherein said head flange includes four stress relief areas.

18. (previously presented) The method as recited in claim 17, wherein the stress relief areas are circular.

19. (new) For an intervertebral disc replacement device having a flange and at least one bone screw hole for receipt therethrough of at least one bone screw and at least one mounting hole, a retaining device for said at least one bone screw, comprising:

a threaded attachment member for threaded engagement with said at least one mounting hole in said flange of said intervertebral disc replacement device; and

a head flange defined by an outer perimeter, said head flange extending from said threaded attachment member, wherein said head flange is in part abuttingly received against a side of said flange of said intervertebral disc replacement device and said outer perimeter is partially received over a portion of said at least one bone screw to prevent said at least one bone screw from backing out of said at least one bone screw hole when said retaining device is fully engaged with said intervertebral disc replacement device,

wherein said head flange includes a solid portion and at least one circular stress relief area wholly contained within the confines of and not extending through said outer perimeter so that the at least one stress relief area is completely surrounded by the solid portion, the at least one stress relief

located on said head flange at a point other than a central point of said head flange and providing for said head flange to be at least somewhat flexible in a substantially axial direction of said threaded attachment member.

21. (new) A retaining device as recited in claim 20, wherein said head flange is of a convex construction from an orientation taken in relation to said threaded attachment member, said head flange flexing in such a manner so as to cause said convex construction thereof to become flatter when said retaining device is fully engaged with said intervertebral disc replacement device, wherein said flatter condition of said head flange causes said threaded attachment member to exert pressure along its said threaded engagement with said at least one mounting hole so as to prevent said threaded attachment member from backing out of said at least one mounting hole.

22. (new) A retaining device as recited in claim 21, wherein said head flange includes four circular stress relief areas.